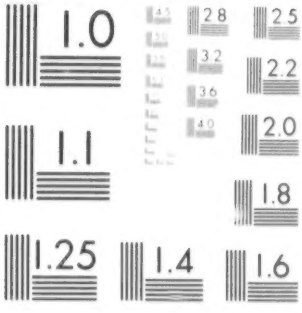

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ABSTRACT

The use of discourse analysis in examining the classroom language interactions between English teachers and their students builds on the basic concepts of language function and language sequence. The four language functions are eliciting, informing, directing, and boundary marking (marking the divisions of discourse units). The three language sequences are moves (the basic units of classroom language, including opening, answer, and followup), exchanges (related moves taken in turns), and transactions (strings of exchanges). Data that examine these functions and sequences were collected for 11 beginning English teachers by coding the audiotapes of three classes per teacher. The patterns observed in these tapes suggest that the training of English teachers should contain a middle ground between the behavioralist approach that argues for microscopic modifications of teaching behaviors (because they correlate with affective or cognitive outcomes) and a gestalt approach that advocates a generalized student attitude as the goal of a holistic approach to teaching. (RL)

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Cyclic Patterns of Interaction in the Discourse of English Teachers

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Introduction

The extended interaction has a considerable research tradition. Smith and Meux (1962) developed the notion of the teaching episode as an interactive series of utterances between a teacher and his or her pupils around a common topic. They differentiated among the types of episodes on the basis of the frequency and diversity of student responses. They also differentiated episodes on the logical basis of the teacher's initial utterance. Subsequently, Nuthall and Lawrence (1965) used these types of categories to develop the notion of the cycle as a sequence of episodes that has a formal structure. Tisher (1970) in a more recent study attempted to relate the frequency of the occurrence of these structures to pupil achievement. Cambourne (1971), using the technique of textual reconstruction, developed the concept of the exchange which is nested within the encounter. For Cambourne, exchanges are the sequentially and temporally related utterances of a single speaker. His categorization of encounters is basically similar to the distinction made by Smith and Meux regarding episodes. Cambourne does allow for situations when the speaker is talking to himself. Since he did not restrict his study to classrooms, the last classification is understandable.

Bellack et al. (1966) observed that one type of teaching structure is most likely to be followed by another identical type of teaching structure. He described the basic cycles of teaching, and this work has since been replicated by Lundgren (1972) in Sweden and Power (1971) in Australia. Prokop (1974), using computer-analyzed strings of Bellack-coded transcripts, concluded that sequential processing provides much more meaningful information on instructional processes.

More recently, a technique has been borrowed from the tradition of the linguistic analysis of written texts and applied to classroom language. Discourse analysis, or the study of the sequences of language functions within connected utterances, has been refined by Sinclair and Coulthard (1975) into a useful method for describing sequential patterns in classroom language.

Discourse analysis builds on two basic concepts: language function and language sequence. Language function is the purpose to which an utterance is being put, that is, an interpretation of the intent of the speaker. Sequence in discourse analysis is the expression of the various interrelationships that an utterance of more than a base sentence has. Language function parallels, but is not identical to, syntactic structure. The four language functions are elicting,

informing, directing, and boundary marking. The first three are self-explanatory. It can be a speaker's intent to provide information, ask a question, or give a direction. The fourth function is tied to the notion that discourse has a sequence. If discourse is sequential, some way must exist to mark the divisions between discourse units. Sequence in discourse implies a pattern or structure within the whole piece of language. While sequence would imply a linear progression, discourse structures can have cataphoric and anaphoric elements. For example, in interpreting the phrase, "That's the one," it is necessary to know the referrant for "that." Since "that" refers to something that has been said previously, it would tie the utterarce it is in to the previous utterance. This notion of an utterance being related to previous or successive utterances is the basis for building sequential patterns of discourse.

It is these characteristics that make discourse analysis an ideal tool for the analysis of classroom verbal interaction. Since speaker intent is likely to have an effect on the interlocutor's thoughts or actions, an analysis system that has a comprehensive theory of intent as its base will be more descriptive than a system that is selective in its language items.

Finally, a discourse analysis approach to the study of classroom interaction has the advantage of descriptive adequacy over older categorical systems. It is based on a comprehensive theory of language behavior; it is applicable to a range of analytic units within the text of a single lesson; and it produces a hierarchical model of classroom activity rather than regarding classroom interaction as sets of relatively autonomous actions.

Discourse Analysis System

In practice, discourse analysis starts at the level of the clause. However, in the case of stereotypical boundary marking expressions such as, "okay" or "alright," it will code even smaller units within a single speaker's utterance. For the purposes of the study, which is concerned with the larger units of classroom discourse, the smallest verbal unit to be considered is the individual speaker's turn. For a more detailed explanation of the complete system, the reader is referred to Sinclair and Coulthard (1975) or Kluwin (1977).

Moves

Moves are units of classroom language defined by the role of the participant and the function of the speaker's utterance. One can describe a number of signals that speakers use to show changes in

conversational turns. As Sinclair and Goulthard comment (1975, p.4), normal conversation does have larger and more complex sets of turn-taking signals due to the complexity of the social relationships involved. However, a number of turn-taking signals that occur n normal conversation are present in classroom interaction including: pitch change, gesticulation change, stereotypical expressions used as boundary markers, and completion of a grammatical clause. The parts of normal conversational turn-taking that are absent from classroom interchange are the speaker-state signals and the auditor-back-channel signals. The relative status assumptions of the situation negate the need for either set of conversational behaviors.

There are three types of moves. The opening move marks the initiation of a new discourse function and a change in participants.

Topically, the move may be related to a previous utterance by the same participant, but it is still considered a new opening move if the function of the clause has changed. The answer move is the alternate participant's response to the initiation. It is optional and may not occur under all conditions. The first speaker's opportunity to react to that response is termed the follow-up move. This consists of all utterances topically related to the previous utterances of the second speaker. In classroom practice the

Table 1

Categories of Exchanges:
Free Exchanges

Initiator	Intent	Move Structure	Exchange Category
Teacher	inform	opening, answer	Teacher Inform
Teacher	direct	opening, answer (follow-up)	Teacher Direct
Teacher	elicit	opening, anwswer (follow-up)	Teacher Elicit
Student	inform	opening, answer	Pupil Inform
Student	direct	**null set	**null set
Student	elicit	opening, answering	Pupil Elicit

teacher is the only one who can consistently comment on another's utterance, and is the only one who is usually allowed to ignore the other's utterance.

A move can change during a speaker's turn. When the speaker changes topics or marks a boundary between utterances by using a stereotypical expression such as "okay, alright, now, or next," a new move is counted.

Exchanges

Exchanges are topically and structurally related sequences of turn-taking. Teaching exchanges, exchanges that are concerned with information transfer, are first characterized by whether or

not they are independent entities or if they are bound to another exchange, to borrow a concept from morphology. Free exchanges can be categorized on the basis of the initiator of the exchange and the intent of the initiator.

Teacher Inform exchanges occur when the teacher is passing on facts, opinions, ideas, or information. Teacher Direct exchanges are those where the teacher's intent is to get the student to do something, usually something physical. Teacher Elicit exchanges attempt to obtain verbal responses from students, primarily to establish what information the other participant possesses.

There are three rules to distinguish between Teacher Elicit and Teacher Direct exchanges since, as Gall (1973) observes, the question is the most frequent syntactic form in classroom language. First, an interrogative is interpreted as a command if it fullfills all of the following conditions: it contains the modals "can, could, will, would, going to"; the subject of the clause is also the addressee; the predicate describes an action that is physically possible at this time. Consequently, "Can you spell the last word on the page?" would be a Teacher Direct exchange head, while "Is it possible to climb a mountain?" would be an interrogative. Second, any declarative or interrogative is to be interpreted as a

command if it refers to an action that is normally proscribed at that time. For example, "Is someone talking?" or "I hear a lot of talking." would be commands, since students are normally not supposed to speak in a classroom unless directly addressed by the teacher. Third, if the action ought to be performed, any reference to it is considered a command.

Pupil Elicit Exchanges and Pupil Inform exchanges are not merely student questions or statements, but formalized sequences where the student must first get the teacher's attention, establish a right to interact, and then speak. In many classrooms, students do not ask questions or they ask questions that require only simple factual information. Since the student has to get the teacher's attention, the teacher can easily brush aside student bids for participation. Further, since it would be considered a command.

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commented on a teacher's answer, there is no follow-up move in a Pupil Elicit.

Bound Exchanges

Some exchanges are bound topically and structurally to a previous exchange, specifically the Teacher Elicit exchange. The four types of Bound Exchanges can be divided on the basis of the student's response to the teacher's question. If the teacher gets no response, she can make another attempt by repeating her questions or by paraphrasing it. This is categorized as a re-initiation 1 exchange. If the response is correct, the teacher may still want to provide more of the same type of response. This is categorized as a List exchange. If the teacher is uncertain of

Table 2

Categories of Exchanges:
Bound Exchanges

Teacher Elicit Exchange (move structure)	Bound Exchange	Exchange Category
opening answer	opening answer follow-up	Re-initiation 1
opening answer follow-up	(opening) answer follow-up	Re-initiation 2
opening answer follow-up	(opening) answer follow-up	List
opening answer	opening answer follow-up	Repeat

the student's response, she or he can ask the student to "repeat" the response. The teacher's treatment of the student's response as incorrect produces the Re-initiaion 2 exchange, however, teachers generally do not give overt indications of student's mistakes.

Transactions

Transactions are strings of exchanges. The transaction is the most vague of any of the levels since it is defined by lower categories that are increasingly more subject to rater interpretation. To eliminate these problems, the transcripts were coded only to the level of the exchange. The possible patterns of transactions were then computed based on the probability of their sequential occurrence.

Reliability of the Coding System

Cronbach alpha's (Cronbach et al., 1972) were calculated for the exchange and the move level. The Cronbach alpha is a measure of the internal consistency of a coding system. The alpha for the move level was .805, and the alpha for the exchange level was .862. The lower level of the reliability for the move level is probably due to the fact that the decision to segment a teacher's utterance between a follow-up and an opening move required a number of assumptions about the teacher's use of how stereotypical phrases were to be interpreted.

Data Collection Process

The data for this study were collected from 11 beginning English teachers. The teachers taught a two-week content-control unit on American Indian Literature to classes of ninth grade students. All the teachers were in the process of completing an intern year as part of a fifth year master's degree program. During the teaching of the unit, the teachers were audiotaped on three occasions. The audiotapes were then transcribed, edited for information loss and accuracy, and retyped for coding.

The 11 classes could best be described as consisting of white, middle-class students with a small minority group representation. The average class size was 27.1 students with a range of 19 to 35 pupils. Over the whole sample of students, the number of males is roughly equivalent to the number of females, but within classes proportions varied. The classes varied slightly in general intelligence but were reasonably similar to each other.

Sequences of Exchanges

The following discussion of sequences of exchanges contains two parts. First, there is a discussion of how different categories of exchanges tend to follow after a specific move of an exchange. This information is then compiled through the use of conditional probabilities to

develop four exchange sequences. It is these four exchange sequences that form the basis for considering transactions as feasible descriptive units.

Table 3 describes what occurs when the first move of an exchange is not followed by the second move of that exchange, but by a new exchange. The percentages expressed are in terms of exchanges following the first move and not in terms of moves, regardless of the move's function in an exchange.

Since Teacher Inform exchanges generally have only a single move, they are most likely followed by another Teacher Inform exchange. Teacher Inform exchanges follow other Teacher Inform exchanges because teachers are apt to present more than one type of content during a descriptive phase or short "lecture" within a lesson. The Teacher Inform exchange can also be used as a transition from one part of a lesson to another, hence the exchanges are often followed by Teacher Elicit exchange. When giving an assignment, teachers will give a brief presentation to either motivate or limit the possibilities of the assignment. This explains the relative frequency of the Teacher Inform-Teacher Direct sequence. Students are somewhat likely to react to the teacher's presentation as seen by the frequency of Pupil Inform and Pupil Elicit exchanges. Infrequently, teachers desire to know if the class is paying attention

Table 3

Percentage of New Exchanges
Following an Opening Move
(N = 33)

New Exchange Opening Move	TI	TE	TD	PI	PE	CK	R-1	R-2	List	RPT	Total
TI	49.6	22.2	8.6	9.7	7.8	2.1	0	0	0	0	100
TE	20.6	18.8	9.1	2.4	10.9	0	38.2	0	0	0	100
TD	22.7	15.5	35.1	3.7	16.8	0.6	0	0	0	5.6	100
PI	23.6	33.5	8.2	24.5	7.3	0.4	0	0	0	2.6	100
PE	2.7	22.7	9.3	34.7	21.3	1.3	0	0	0	8.0	100
CK	21.3	3.3	21.3	3.3	8.2	42.6	0	0	0	0	100
R-1	5.7	5.6	0	0	83.3	0	0	0	0	0	100
R-2	27.3	9.1	9.1	0	27.3	0	27.3	0	0	0	100
List	11.1	11.1	0	11.1	22.2	0	44.4	0	0	0	100
Rpt	0	0	0	100	0	0	0	0	0	0	100

and has absorbed what has been said. The low frequency of check exchanges suggests that teachers have other ways of monitoring students' attention.

When students fail to answer a teacher's initial question, a basic rule of classroom interchange is violated. Teachers expect answers. The distribution of exchanges subsequent to the opening move of the Teacher Elicit exchanges suggests that when this happens the teacher is most likely to forge ahead by rephrasing the question. Re-initiation 1 exchanges make up less than one-half of the subsequent exchanges, which suggests that teachers will not always fall back on this strategy. The use of Teacher Inform exchanges shows that the teacher has abandoned the idea of asking the question and is going to move on by giving the students the information. The use of a Teacher Elicit exchange indicates

Table 4

Percentage of New Exchange Following an Answer Move (N = 33)

	TI	TE	TD	PI	PE	CK	R-1	R-2	List	Rpt
TI	48.8	11.6	14.0	11.6	9.3	4.7	0	0	0	0
TE	7.0	60.5	2.5	8.9	2.3	0.6	0	10.0	7.0	1.1
TA	10.7	28.2	29.8	3.9	2.8	0	0	4.9	9.7	0
PI	28.2	30.7	7.5	26.1	6.6	0.8	0	0	0	0
PE	27.1	17.4	12.8	13.9	27.4	1.0	0	0	0	0
CK	16.7	6.7	6.7	3.3	6.7	60.0	0	0	0	0
R-1	1.4	18.1	1.4	5.6	1.4	0	55.6	8.3	6.9	1.4
R-2	1.6	18.0	3.3	4.1	0.0	0	0	65.6	4.1	2.5
List	5.0	13.2	3.3	2.5	0.8	0.8	0	1.7	71.9	0.8
Rpt	10.3	17.2	3.4	3.4	0	0	0	10.3	6.9	48.3

that the teacher has completely altered the question and intends to attempt a whole new line of questioning. The rare occurrences of student initiated exchanges shows that very seldom will students interrupt at this point in the discourse to raise the possibility that the teacher has not made himself or herself understood.

Teacher Direct exchanges are followed by other Teacher Direct exchanges to reinforce the original injunction or to provide a second set of directions in a fairly complex task. The use of Teacher Inform exchanges following the Teacher Direct exchanges is due to the teacher's desire to account for the direction that has been given. Teacher Direct exchanges followed by Teacher Elicit exchanges tend to be desist incidents, where the teacher forbids a type of behavior and immediately returns to the teaching process.

Pupil Inform exchanges tend to be random insertions in the flow of classroom language. Since they are most likely followed by a Teacher Elicit exchange, it is clear that most often they are interruptions. It is about equally likely that the teacher or another student will comment following the Pupil Inform exchange. It is interesting to note that if a teacher does not respond to the opening move of a Pupil Elicit exchange, a pupil will fill the gap.

Teacher Inform exchanges seldom have an answering move, consequently, the exchanges following such a move are generally uninteresting.

Teacher Elicit exchanges show a pattern that will continue throughout the rest of this discussion: the tendency of teacher questions to be followed by more teacher questions. The infrequent use of a Teacher Inform exchange instead of a follow-up move for the Teacher Elicit exchange indicates that teachers do not often alter the flow of their discourse in that they do not often change topics during questioning sequences. Rapid jogs in the process of the discourse are self-defeating to a teacher trying to maintain a thread of dialogue, hence their low frequency of occurrence. The same logic probably applies to the case of the frequency of Teacher Direct exchanges following the answering move of the Teacher Elicit exchange. These are more likely to be desist incidents rather than instructions to perform a new task.

The low incidence of Pupil Inform exchanges indicates that other students are either trying to answer the same question or are providing different information that is related to the topic. The low frequency of Re-initiation 2's indicates that teachers are not likely to overtly correct students. A Teacher Direct exchange where the student has informed the teacher of some fact during the student's answer move is most often followed by another Teacher Direct exchange.

Pupil Inform answer moves are equally likely to be followed by Teacher Inform, Teacher Elicit, or Pupil Inform exchanges. Teacher Inform exchanges tend to be new or slightly different topics since the teacher has already taken the opportunity to comment on the pupil's contribution during the answer moves. Teacher Elicit exchanges signal that the teacher is returning to the matter under discussion by engaging the other students following a comment on the contributor's remarks. When the opening move of a Pupil Inform exchange is followed by a Teacher Elicit exchange, it indicates that the teacher is calling the pupil's remarks into question or is simply ignoring them.

The answer moves of Pupil Elicit exchanges are equally likely to be followed by a Teacher Inform exchange as by another Pupil Elicit. Subsequent Pupil Elicit exchanges indicate that the students wish to continue the issue. The high frequency of Re-initiation 1's following the answer move of Re-initiation 1's shows that the students have answered, but the teacher has still not understood the response.

The list exchange usually has only two moves and the high frequency of List exchanges following the answer moves shows that List exchanges tend to follow other List exchanges. Often they are grouped together in batches of three or more. Repeat exchanges following Repeat exchanges show that the students have answered but the teacher has not understood the response.

Table 5

Percentage of New Exchanges
After a Follow-up Move
(N = 33)

	TI	TE	TD	PI	PE	CK
TI_F	25.0	50.0	0	12.5	25.0	0
TE_F	23.5	57.4	6.8	8.0	3.1	0
TD_F	28.1	34.4	21.9	6.3	9.4	0
CK_F	13.6	39.1	39.1	4.3	4.3	8.6
$R\text{-}1_F$	31.4	45.7	5.7	14.3	2.9	0
$R\text{-}2_F$	2.3	72.1	0	14.0	11.6	0
$List_F$	24.0	66.7	2.1	9.5	0	0
Rpt_F	23.1	30.8	23.1	7.7	15.4	0

Relatively few Teacher Inform exchanges have a follow-up move so the information regarding what follows that particular move is not very informative. Since a greater number of Teacher Elicit exchanges have follow-up moves, the pattern of moves following a Teacher Elicit exchange is more interesting. Teacher Elicit exchanges tend to be followed by another Teacher Elicit exchange regardless of whether they contain two moves or three. Teacher Direct exchanges are most likely to be followed by a Teacher Eliicit exchange if it goes to three moves because the teacher has not only gotten feedback from the student, but also has been able to react to the student's response. Since Teacher Elicit exchanges are the most frequent type, it is more likely for the

teacher to go on from that point. The same kind of logic applies to Checks. Once the teacher has responded to the student, he or she is more interested in getting on to the next point in the lesson. The Teacher Elicit exchange occurs here because it is the most frequently occurring type of exchange. The less frequent occurrence of Teacher Inform exchanges suggests that teachers are probably embarking on new topics and are using the opportunity for closure that the third move of the Teacher Elicit exchange offers. The probability that there will be a sequence of three Teacher Elicit exchanges in a row is better than 1 in 10. The probability that a particular move of a Teacher Elicit exchange, regardless of what precedes the exchange, will be followed by either another Teacher Elicit exchange or an exchange that is bound to a Teacher Elicit is between 1 in 4 and 1 in 5. Again, the pattern of teacher questioning shows up. Teachers not only ask a large number of questions, but their questions are ordered into sequences.

It is equally as likely that a Teacher Elicit exchange that has been preceded by a Teacher Elicit exchange will be followed by another Teacher Elicit exchange, regardless of whether there is a follow-up move. In a more conversational style of presentation, one would expect that the Teacher Elicit exchanges with follow-up moves would be more likely to occur than would

Table 6

Sequences of Exchanges: Rank Ordering of Combinations by Probability of Occurrence of More than .01

Rank	Previous Exchange	Exchange Moves	Subsequent Exchange	Probability of Occurrence
1	TE	TE_O TE_A	TE	.063
2	TE	$TE_O TE_A$ TE_F	TE	.059
3	TI	TI_O	TI	.050
4	TI	TE_O TE_A	TE	.042
5	TE	TI_0 TI_A TI_F	TE	.036
6	TE	TI_O	TI	.035
7	TE	TI_O TI_A	TI	.035
8	TI	TE_O TE_A TE_F	TE	.028
9	TI	TE_O	R-1	.023
10	TD	TD_O	TD	.019
11	TE	TI_O	TE	.016
12	TI	TE_O	TI	.012
13	TI	$TE_O TE_A$ TE_F	TI	.011

the Teacher Elicit exchanges with only an answer move. This indicates that over the entire sample, teachers were about as likely not to respond to a student answer and go on to the next question as they were to comment on the student's reply before asking another question.

Following a Teacher Inform exchange, if a teacher failed to get a response, the teacher was twice as likely to follow with a Re-initiation 1 exchange than to provide additional information with

a Teacher Inform exchange. This might suggest that teachers generally are more interested in getting answers to questions once they start than in communicating information.

An interesting sequence is that Teacher Direct exchanges are more likely to be bracketed by other Teacher Direct exchanges than by anything else. This holds true regardless of the move of the Teacher Direct exchange. If the move is an answer move, the probability is .006. If it is a follow-up move, it is equally likely to be a Teacher Elicit, Teacher Inform, or Teacher Direct exchange, but since so few Teacher Direct exchanges have follow up moves, the probabilities are negligible.

Two reasons account for the sequencing of Teacher Direct exchanges. First, they tend to come in bursts from teachers who are trying to establish control over an unruly class. Second, when teachers give directions for an assignment or a class activity, it is often sufficiently complex as to require several subsets of directions. There is probably a discourse structure to directions as there is to information giving, but the pattern is not as apparent as information giving situations since the direction giving can be prompted by a variety of sources.

The opening move of the Teacher Inform exchange is most likely to have been preceded by a Teacher Elicit

exchange, but it can be followed either by another Teacher Inform exchange or by a Teacher Elicit exchange, with the former being about twice as likely. If the Teacher Inform exchange has been preceded by another Teacher Inform exchange, it is most likely followed by another Teacher Inform exchange. The difference among the patterns is due to the fact that a Teacher Inform exchange preceded by a Teacher Elicit exchange is most likely to be part of a sequence of questions where the teacher pauses to summarize or to initiate a new sequence in the classroom by altering the topic. When a teacher Inform exchange is preceded by a Teacher Inform exchange, it is because the teacher has begun to lecture on a topic and has presented a series of topically and structurally differentiated pieces of information. That is not to say that the information is not topically related, but rather that it is differentiated in its content and is indicated by the teacher by use of structural markers.

Table 6 suggests that the basic sequence of English classes is a Teacher Elicit exchange followed by another Teacher Elicit exchange or by a Teacher Inform exchange. The basic teaching pattern is one of questioning and information processing with the emphasis on questioning. The most likely sequence of three exchanges is a sequence of three Teacher Elicit exchanges. The only difference between the two most probable sequences is

that of the structure of the middle exchange. The first two sequences when combined are twice as likely to occur as the third sequence. This sequence reflects teacher "lecturing" where the teacher presents some information that is related but can be distinguished topically and structurally.

The next five sequences of exchanges reflect another teaching pattern: the intermingling of teacher questions with brief stretches of information to either mark junctures in the lesson, to set the stage for a new topic, or to summarize the previous discussion.

The ninth sequence differs from the others only in that the occasional bound exchange follows the Teacher Elicit exchange. The tenth most likely sequence is a series of Teacher Direct exchanges which could be typical either of the assignment of multi-part homework or a series of desist statements to different individuals during an unruly part of a class period.

The last two sequences once again represent the general pattern of Teacher Elicit exchanges alternating with Teacher Inform exchanges. The probability that a Teacher Inform-Teacher Elicit sequence will occur is about 4 out of 10. If Bound exchanges were considered, this probability would inch upward.

It is difficult for students to break into these transactions. No sequences contain student-initiated exchanges in Table 7 because of the low probability of

occurrence of a student initiated exchange following a teacher initiated exchange. Reference to Tables 4 and 5 will show that student initiated exchanges follow other student initiated exchanges and not necessarily teacher initiated exchanges. When students "break-in" it tends to be in groups of student initiated exchanges; consequently, there is a low proabiliity for a single student initiated exchange to follow a teacher initiated exchange. Table 6 reflects the reality of the situation. A consideration of Tale 6 suggests that Prokop's (1974) conclusions about basic patterns of teaching could be applied to these English classes. There is a juncture transaction or a sequence of exchanges that mixes questions and information to mark boundaries. When the Teacher Elicit exchanges follow the Teacher Inform exchange as in sequences 4, 8, 9 of Table 6 (probability = .093), it indicates the start of a fairly long topical sequehce. These patterns are found when teachers go into major lesson divisions. When a Teacher Elicit exchange is bracketed by Teacher Inform exchanges as in sequences 12, 13 (probability = .023), the teacher is either checking on the acceptance of the information just presented or is discovering that there is no need to pursue the present topic further. Teacher Inform exchanges bracketed by Teacher Elicit exchanges (#1) are frequently long elaborations on a

point related to the previous question sequence, a brief exemplar, etc. Sequences 5, 6, and 7 describe a pattern where the teacher is making a fairly serious topic change. The next most probable transaction or sequence of exchanges is the interactive where the teachers engage students directly. They are not really complete units but should be seen as blocks of interaction to be attached to other sequences. Informative transactions are relatively rare sequences of continuous teacher talk. This group of teachers generally refrained from "lecturing," hence the low probability of such sequences. The directive transaction, though relatively unlikely to occur, shows that when teachers do give directions, the directions tend to be related to each other.

Implications

The training of English teachers should contain a middle ground between the "behavioralist" approach that argues for microscopic modifications of teaching behaviors because they correlate with affective or cognitive outcomes and a "gestalt" approach towards teaching that holds up a generalized student attitude as the goal of a wholistic approach to teaching. The middle ground should be the realization that to bridge the gap between appropriate micro-behaviors and an overall impression of a "good teacher" short-range teaching strategies are needed.

Teacher training should contain a component for reaching middle-range objectives. Beginning teachers should know how to achieve the "enabling objectives" that achieve the overall lesson plan. This study offers four categories of short-range teaching activities. What is now needed is theory building to describe what the ideal short range strategies should be, and further studies of what combinations of short-range behaviors are effective for specific purposes.

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